

1 DE-A 19953950

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2001-484021/53	A23	BADI 1999.11.09 *DE 19953950-A1 1999.11.09 1999-1053950(+1999DE-1053950) (2001.05.10) C08L 77/00, C08K 5/353	A(5-F1B1, 8-M, 12-E1, 12-S5K, 12-T2, 12-T4)
		Thermoplastic polyamide molding material with improved flow, used for production of fibres, film or moldings, contains a branched homo- or co-polymer obtained from a 2-3'-hydroxyphenyl-oxazoline compound	(C) 0-60 wt% other additives.
		C2001-145301 Addl. Data: GRUTKE S, GRUBER F, VOTT B, HUBER T	
<u>NOVELTY</u>		Thermoplastic molding materials containing: (A) 39-99.95 wt% thermoplastic polyamide; (B) 0.05-9 wt% branched homo- or co-polymer obtained by polymerisation of a 2-(3-hydroxyphenyl)-oxazoline compound; (C) 0-60 wt% other additives.	
<u>DETAILED DESCRIPTION</u>		Thermoplastic molding materials containing: (A) 39-99.95 wt% thermoplastic polyamide; (B) 0.05-9 wt% branched homo- or co-polymer obtained by	(I) $R^1 = H, COOR^4, OH$ or a group of formula (II); $R^2, R^3 = H, methyl, ethyl, benzyl or phenyl$, with the proviso that at least one of these groups is H; $R^4 = H$ or 1-4C alkyl; $R^5, R^6 =$ as for R^2, R^3 An INDEPENDENT CLAIM is also included for molded products DE 19953950-A+

obtained from these materials.

USE

For the production of fibres, film and molded products (claimed). Preferred applications are in electrical products, electronics and motor vehicles.

ADVANTAGE

The addition of branched polymers derived from 2-(3-hydroxy-phenyl)-oxazoline compounds gives polyamide-based molding materials with good flow properties combined with good mechanical properties and good melt- and processing-stability.

SPECIFIC COMPOUNDS

(A) is polyamide 6.

EXAMPLE

2-(3,5-dihydroxyphenyl)-oxazoline (3.3 g) was polymerized by heating the melt for 1.5 hours at 220 °C and then working up by dissolution in dimethyl sulfoxide (5 ml) followed by precipitation with water or methanol. The product (P2; 2.8 g; 84%) showed a degree of branching of 59% (by ¹H-NMR analysis), mol. wts. (by GPC) of Mn =

DEFINITIONS

Preferred Definitions: R¹ = OH; R² = R³ = H.

TECHNOLOGY FOCUS

Polymers - Preferred Components: Component (A) shows a COOH to NH₂ end group ratio of more than 1. Component (B) has a degree of branching of at least 10% and a number-average mol. wt. (Mn) of at least 5000.

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